#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022081 Address: 333 Burma Road **Date Inspected:** 05-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** An Qing Xiang, Qiu Wen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 14, OBG 13AW (NWIT # 08051)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SEG3013K-003

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

**OBG Seg 13AW** 

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3013AH-039 [K-plate KP3010A to Side Plate (SP) 3010, complete joint penetration (CJP) weld, in between Panel Points (PP) 118~118.35]. The welder is

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

identified as 045143 and was observed welding in the 2G position. ZPMC QC was identified as Li Ping. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3013AA-052 [Edge Plate (EP) 3020C to Floor Beam (FB) 3189A, complete joint penetration (CJP) weld, at PP119]. The welder is identified as 045280 and was observed welding in the 3G position. ZPMC QC was identified as Li Ping. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

**OBG Seg 13BW** 

Repair welding of weld joint no: SEG3014S-052 [Vertical Plate (VP) 3013A to Side Plate (SP) 3106A, CJP weld at PP122]. The welder is identified as 045196 and was observed welding in the 1G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-1G(1F)-FCM-Repair. Repair welding was done as per Critical Welding Repair Report (CWR): B-CWR 2625 Rev-0.

#### **OBG Segment 14W**

Repair welding of weld joint no: SEG3020Y-030 [Bottom Plate (BP) 3091A to Longitudinal Diaphragm (LD) 3051A, CJP weld in between Panel Points (PP) 127~127.5]. The welder is identified as 066239 and was observed welding in the 2G position. Welding process was identified as FCAW. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS:

345-FCAW-2G(2F)-ESAB-Repair-FCM. Repair welding was done as per Critical Welding Repair Report (CWR): B-CWR 2664 Rev-0.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AL-089 [Stiffener of Side Plate (SP) 3140B to Floor Beam (FB) 3321A, complete joint penetration (CJP) weld, at PP126]. The welder is identified as 066421 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AL-021 [Side Plate (SP) 3141C to Floor Beam (FB) 3319A, complete joint penetration (CJP) weld, at PP127]. The welder is identified as 066038 and was observed welding in the 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AL-301 [Side Plate (SP) 3141D to Floor Beam (FB) 3319A, complete joint penetration (CJP) weld, at PP127]. The welder is identified as 051348 and was observed welding in the 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020Y-022 [Longitudinal Diaphragm (LD) 3051A to Floor Beam (FB) 3327A, CJP weld, at PP127]. The welder is identified as 047866 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020L-085 [Bottom Plate (BP) 3090A to Floor Beam (FB) 3327A, CJP weld, at PP127]. The welder is identified as 045276 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer